Carey

Insulation Products

Rock Wool
Asbestos
85% Magnesia

Carey Rock Wool building insulation

Loose fibre . . . . Granulated . . . . Batts

Carey Rock Wool is produced from rock melted and blown by high pressure steam into fine silky fibres which entangle and form millions of minute dead air spaces. These minute dead air spaces provide the basic principle of insulation.

Heat travels by three common methods: namely, radiation, conduction and convection. In that the fibres are similar to small glass rods, they have very little surface area from which to throw a radiant heat. Further, these rods being only a few thousandths inch in diameter have very little heat carrying capacity, which makes the mass a poor conductor of heat. Further, the mass of fine fibres interlaced as described above breaks up the air space in which the material is located sufficiently to completely eliminate any possible currents of air, thereby eliminating heat transfer by convection.

Properties of Carey Rock Wool building insulation

fire resistant
Carey Rock Wool is made from minerals that will not burn. When installed in buildings, it provides added fire safety.

permanent
Rock Wool is a fibrous material that will not disintegrate nor slack away. It will outlast the life of the building.

inorganic
The mineral fibres of Rock Wool are unaffected by moisture or corrosion.

low thermal conductivity
Rock Wool has the insulating value of a brick wall 59 inches thick.

odorless
Made of molten rock at high temperature, Carey Rock Wool emits no odors.

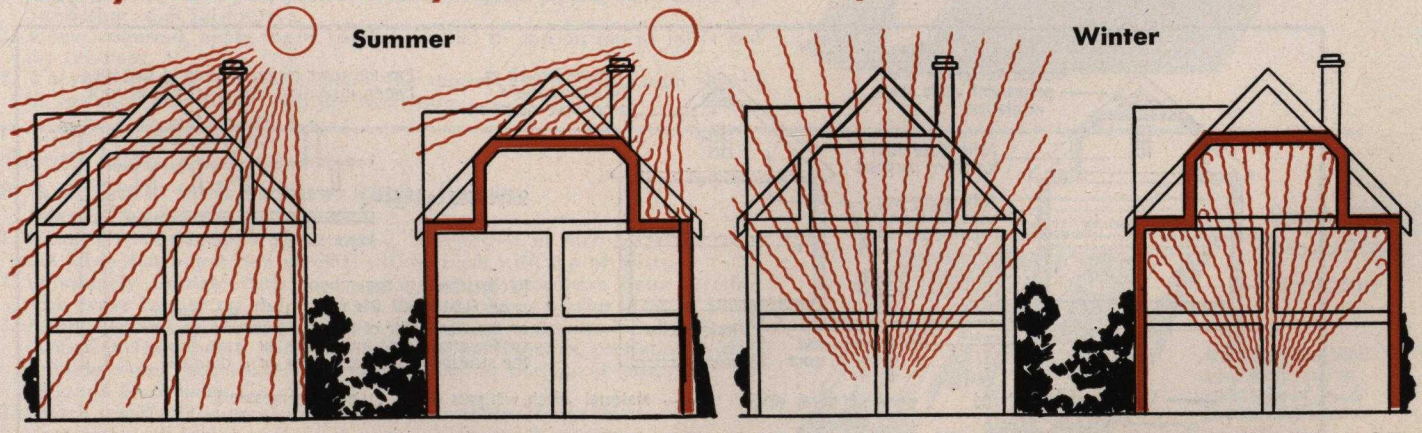
sheds water
Carey Rock Wool is moisture resistant—it sheds water and has no "wick" action.

no waste
Even trimmings of Rock Wool Batts are used to caulk around doors, windows, etc.

non-settling
Carey Rock Wool building insulation is composed of fine, resilient mineral fibres. When properly installed, it retains its position indefinitely.

vermin-resistant
Carey Rock Wool offers no sustenance to any kind of vermin.

Carey insulation for year 'round comfort, plus!



In summer, heat goes right through the roof and walls of the uninsulated home.

Carey Rock Wool Home Insulation stops this passage of heat, through the roof and walls of your home.

In winter, heat that is provided at great cost, passes through the roof and walls of the uninsulated home.

Carey Rock Wool Home Insulation prevents the passage of heat through the side-walls and roof of your home.

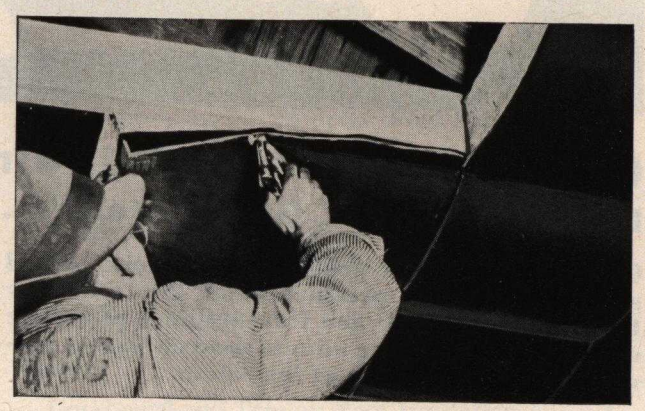
The Philip Carey Manufacturing Company

Carey insulations

methods of application

blown-in application

batt application



general technical data

thermal conductivity

style	density	mean temp.	K*
loose	6 lb./cu. ft.	75° F.	.220
granulated	6 lb./cu. ft.	75° F.	.252
batts	4½ lb./cu. ft.	75° F.	.220

*K equals B.T.U. per square foot per hour per degree F. difference in temperature per inch thickness.

The values obtained in the above report were determined by the method described in Trans. Am. Inst. Chem. Eng. 18(1926)283-293 wherein an Alundum Flat Plate Conductimeter was used.

The above tests were conducted by Mellon Institute of Industrial Research.

density—width—thickness

style	thickness	width	density
loose		bulk	6 lb.*
granulated		bulk	6 lb.*
batts	full thick	15"x24" or 48"	4 lb./cu. ft.
batts	semi-thick	15"x24" or 48"	4½ lb./cu. ft.

*The density of loose and granulated wool will vary, depending upon the individual applying it. This material can be installed at any desired thickness in that it is bulk type material.

Carey Rock Wool Home Insulation will meet Federal Specification HH-I-521 b. Carey Rock Wool products are furnished in standard styles required by the trade.

general application notes

preparation for application

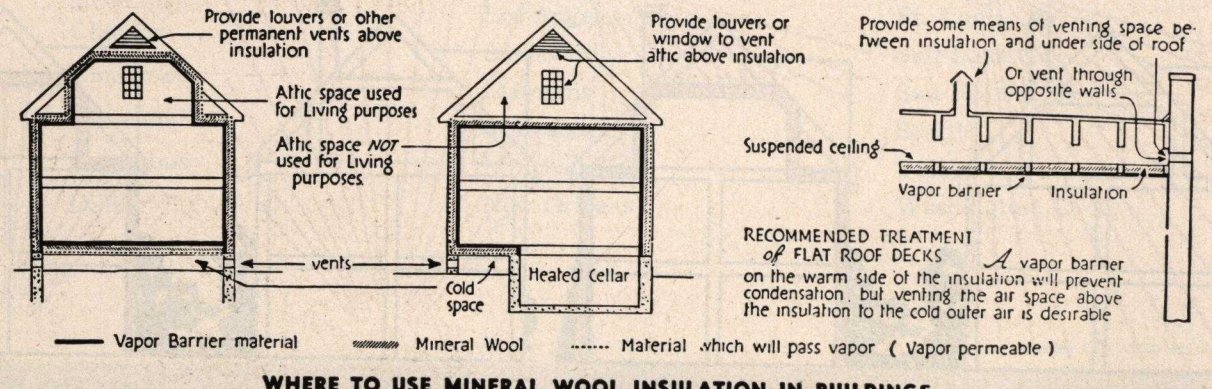
It is important that exterior walls and roof be completely sheathed and made substantially watertight before insulation is installed. All electrical conduits, outlets, plumbing and duct work installed in walls, roof and floors where insulation is to be installed, to be inspected, before the insulation is applied. This is in order that other trades will not be required to remove the insulation once it is properly installed.

ventilation

It is recommended that all building structures where possible be provided with ventilation above the insulation. The amount of ventilation normally required is ¼ sq. in. per sq. ft. of insulating area.

vapor barriers

All vapor barriers used in connection with Carey Rock Wool Batts are the standard of the Mineral Wool Industry. If unusual or exaggerated conditions are encountered, we recommend the use of Carey Vapor Stop, which is an asphalt saturated paper having a gloss coating of asphalt on two surfaces.


Provide louvers or other permanent vents above insulation
Attic space used for Living purposes
Attic space NOT used for Living purposes
vents
Cold space
Heated Cellar
Provide louvers or window to vent attic above insulation
Provide some means of venting space between insulation and under side of roof
Or vent through opposite walls
Suspended ceiling
Vapor barrier
Insulation
RECOMMENDED TREATMENT of FLAT ROOF DECKS
A vapor barrier on the warm side of the insulation will prevent condensation, but venting the air space above the insulation to the cold outer air is desirable
Vapor Barrier material
Mineral Wool
Material which will pass vapor (Vapor permeable)

WHERE TO USE MINERAL WOOL INSULATION IN BUILDINGS

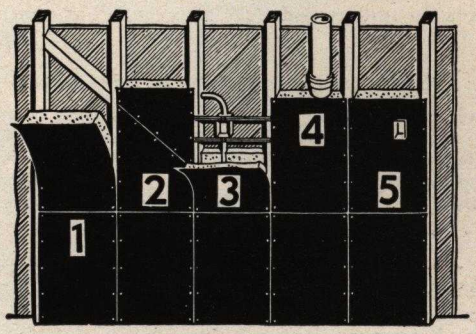
With Proper Relationship of Vapor Barriers and Vapor Vents

application details

installation of full thick batts

batts with integral vapor barrier

1. Start at bottom of stud space, installing Mineral Wool below floor line for fire-stopping. Completely insulate each stud space, snugly butting successive batts together and fastening the flange of vapor barrier to the studs. Where required at sills, plates, etc. provide additional flange on the vapor barrier by cutting away the wool but leaving vapor barrier for overlap on framing.
2. Cut batts to fit angles, corners and irregular spaces, leaving flanges on the vapor barrier for fastening.
3. Where electrical cables or conduits obstruct the panel, split the batts and install part of the wool behind the obstructions, placing the remainder over the face.
4. Large pipes may require removal of part of the wool, but retaining the vapor barrier. To protect water pipes from freezing, apply insulation to the cold side only, removing it from the batt where the piping is located but leaving the vapor barrier intact.
5. Cut vapor barrier to fit snugly around electrical outlets, protruding pipes, etc.



top floor ceiling

A. batts with integral vapor barrier

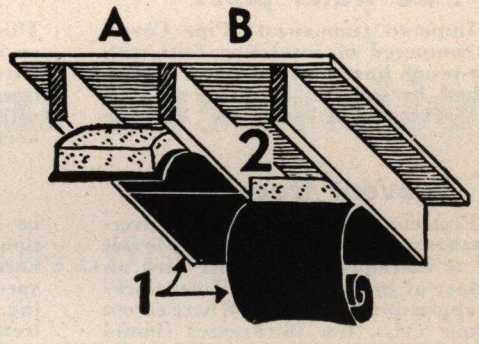
1. Insert from below, tightly butting batts together and attaching flanges of vapor barrier securely to joists before applying supports. Completely insulate each joist space.
2. Cut blankets to required length plus allowance for attaching at ends.

B. batts without integral vapor barrier

1. Where a vapor barrier is required, install it by attaching to the under side of joists before applying lath, wall board or other support.
2. Insert batts progressively as vapor barrier and support are applied. Fit batts tightly against those already installed. Continue till each joist space is insulated completely.

general notes:

If fresh air circulation is not provided at eaves, seal off end of space between rafters and eave line to prevent entry of water vapor from coming up thru walls from sources beneath the house. This U-shaped seal should be carried up 6″ on the sheathing and tacked to form an envelope to enclose the end of the insulation. Wherever there are collar beams, apply the insulation between them and ventilate the space above them.



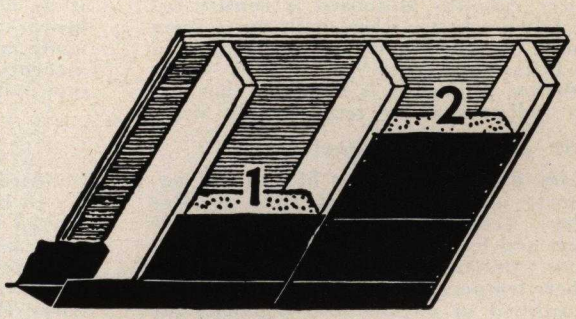
sloping roofs

batts with integral vapor barrier

1. Install first batt, or end of blanket, at bottom of rafter panel, fitting it snugly against the U-shape seal. Attach flanges to rafters.
2. Install successive batts the same way, butting them closely together.
3. Blankets should be attached to the rafters by the vapor barrier flange, starting at the eave line and progressing upwards. Allow sufficient length at ends for overlap and attachment at eaves and collar beams or ridge.

A. batts without integral vapor barrier

1. Install a suitable supporting material, as required.
2. Insert batts between joists, fitting around bridging, piping, etc. completely insulating each joist space.
3. Where required, apply vapor barrier parallel to and on top of joists and lay sub-floor.
4. Where flooring is already in place, the support for the insulation should be installed alternately with the insulation.



floors and cold spaces

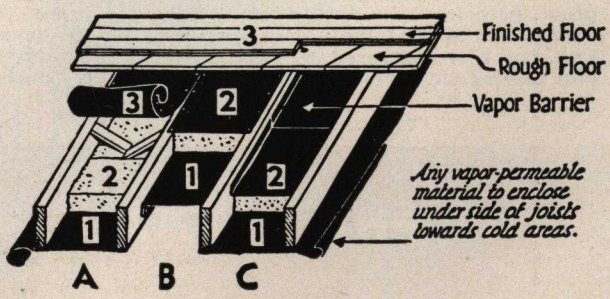
B. & C. batts with integral vapor barrier

(Method 1—drawing B)

1. Install a suitable supporting material, as required. at such height between the joists that upper face of batts will be flush with top of joists.
2. Completely insulate each joist space, butting successive batts together with vapor barrier up and attaching flange of vapor barrier to top of joists.
3. Apply flooring as required. (Note: If flooring is already installed, apply insulation from below with vapor barrier up. Support insulation with a suitable vapor permeable material attached to bottom of joists).

(Method 2—drawing C)

1. Attach a suitable supporting material to bottoms of the joists.
2. Completely insulate each joist space, applying batts upon supporting material with vapor barrier up. Turn flanges up and attach to sides of joists. Fit insulation around bridging, piping, etc.
3. Lay flooring as required.



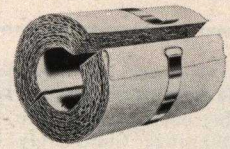
Carey asbestos and magnesia insulations

insulation for building, piping and equipment

for . . heating systems

Careycel Pipe Covering, Blocks and Sheets are designed especially to insulate pipes, boilers, insulated metal boiler jackets, ovens, and other apparatus where temperatures do not exceed 300° F.

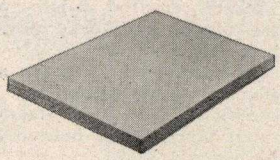
Furnished in 36-in. long pipe covering sections with cotton duck jacket and bands for all pipe sizes. Standard thickness, 1 in. Blocks are furnished 6 x 36 in., and sheets 36 x 36 in., thicknesses from ½ in. up.



for . . air conditioning ducts

Careycel Board is a fireproof, low-cost highly efficient asbestos board for the insulation of metal ducts and all types of air conditioning equipment.

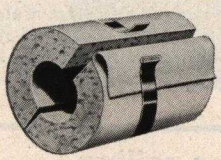
Composed of laminations of indented (not corrugated) asbestos felts, this light weight board weighs approximately 1½ pounds per board foot. Furnished in sizes 36 x 36 in. or 36 x 72 in. Blocks are 6 x 36 in. Thickness from ½ in. up.



for . . service water pipes

Carey Perfecto (wool felt) Pipe Covering consists of laminations of insulating felt with an all-purpose liner suitable for use on either hot or cold pipes. Furnished in 36-in. long sections with canvas jackets and bands in thicknesses of ½, ¾, 1 in., double ½ in., and double ¾ in.

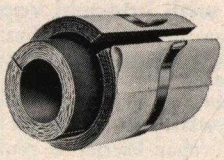
Carey Perfecto Pipe Covering is designed to provide an inexpensive insulation for cold water pipes.



for . . ice water pipes

Carey Impervo (non-sweat) Pipe Covering is composed of insulating felts with a water-proof liner and vaporseal jacket. Furnished in sections 36 in. long with canvas jackets and bands for all pipe sizes.

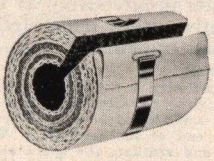
This product is designed for and used on ice water and cold water pipes to keep water cold and prevent sweating. Double layer construction should always be used with the joints and seams staggered to keep air away from the pipe.



to . . prevent freezing

Carey Protecto (anti-freeze) Pipe Covering consists of two inner layers of hair felt having a water-proof felt liner and an outer liner of insulating felt. Total thickness is approximately 1¼ in. Where severe conditions exist, two thicknesses should be used. Furnished in 36-in. long sections with canvas jackets and bands.

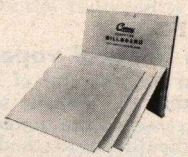
Carey Protecto Pipe Covering is designed specifically to reduce the danger of freezing where water pipes are exposed to extremely low temperatures.



for . . radiator recesses

Carey Asbestos Millboard is constructed of felted asbestos fibers built up to form sheets in standard size of 42 x 48 in. and in thicknesses from 1/32 to ½ in. Carey Asbestos Millboard is ideal for backing up radiators where recessed into walls.

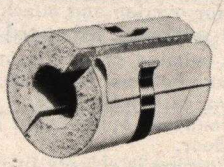
It is a firm, semi-rigid, fire resisting board. It can be handled and installed easily and its firm structure insures permanence. It serves both as fire protection and as a heat insulator.



for . . power systems

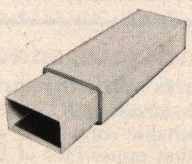
Carey 85% Magnesia is 85% basic carbonate of magnesia and 15% asbestos fiber. Accepted as quality standard for high and low pressure work where maximum permanent efficiency is desired where temperatures do not exceed 600° F. Furnished in sections and segments for covering pipes. Flat blocks are in three standard sizes, 6 x 36 in., 6 x 18 in., and 3 x 18 in. Thickness from ⅞ to 3½ in. Curved blocks are furnished for diameters from 30 to 96 in. Curved blocks are 6 in. wide by 42 in. long.

For temperatures exceeding 600° F. use Carey Hi-Temp No. 19, and 85% Magnesia Combination Covering.



get . . prefabricated air ducts

Careyduct is a preformed asbestos, fireproof, permanent air duct, which is light weight, easy to erect, clean in appearance, with low cost compared to sheet metal plus insulation. Carey duct is an efficient conveyance for conditioned air and comprises duct, insulation and acoustical treatment in one unit. Careyduct permits higher velocities of air with smaller ducts. It "hushes" air, fan and duct noises.



THE PHILIP CAREY MANUFACTURING COMPANY

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For pages on Carey Built-up Roofing, Shingles, Corrugated Roofing, Heat Insulation, see Sweet's File Index

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